

## REMARKS

Applicants have amended pages 1, 7, 11, 12, 13 and 23 of the Specification to address the Examiner's objections.

Claims 13, 14, 19, 21, 26 and 27 are amended to overcome the Examiner's objections and/or rejections.

Figure 7 is amended to address the Examiner's objections.

Applicants submit that the amendments are supported by, for example, the originally filed Claims, Description and Drawings and that no new matter is presented by these amendments.

### ***Objections to the Drawings are Obviated***

The Examiner has objected to the substitute sheets of drawings filed on 10/03/02 because they allegedly introduce new matter into the drawings. Specifically, the Examiner alleges that the original disclosure *does not* support the showing of:

- SEQ ID NO: 3 containing a space instead of a period between residues 10 and 11; and
- SEQ ID NO: 5 containing a space between residues 2 and 3.

Applicants submit a replacement sheet containing Figure 7 in order to address the above objections. Currently proposed Figure 7 incorporates the corrections made to original Figure 7 as shown in the marked-up copy of the same filed on 10/03/02, which were approved by the Examiner. Thus SEQ ID NO: 3 no longer contains a space between residues 10 and 11, containing instead a period between these residues as was shown in Sequence A of the original Figure. SEQ ID NO: 5 no longer contains a space between residues 2 and 3.

The period between residues 10 and 11 of SEQ ID NO: 3 is intended to function as a "gap" or "place holder" (see for example, page 18, lines 23-25, and page 19) that facilitates visualization of alignment between SEQ ID NO: 3 and the other sequences, and does not represent a significant "value" in the sequence, such as a residue.

Applicants submit that no new matter is presented by these amendments since they are supported by, for example, the originally filed Figure 7.

***Objections to the Specification are Obviated***

The Examiner has objected to the Specification because it contains embedded hyperlinks and/or other forms of browser-executable code. Applicants have amended pages 7, 11 and 13 of the Specification to delete hyperlinks and/or other forms of browser-executable code, thereby obviating this objection.

The Examiner has also objected to the incorporation of Attorney Docket numbers in the Specification. Applicants have amended pages 1 and 12 of the Specification to address this objection. Applicants would like to clarify that the Attorney Docket Number on line 25 of page 12 was incorrectly specified as 3273.1 instead of 3373.1. The U.S. Patent Application Serial Number inserted in the present amendment (09/745,965) corresponds to Attorney Docket Number 3373.1 rather than Attorney Docket Number 3273.1. Applicants submit that this amendment does not represent new matter because support for the same may be found, for example, on page 1, line 12 of the Specification.

The Examiner has further noted that the incorporation by reference of websites on pages 7 and 13 of the Specification is improper. Applicants have amended pages 7 and 13 of the Specification to delete such incorporation by reference, thereby obviating this objection.

Applicants submit that no new matter is presented by these amendments and that the above objections are obviated by the amendments.

***Objections to the Claims are Obviated***

The Examiner has objected to Claim 14 for containing typographical errors and to Claim 21 for reciting the term "CDS". Applicants have amended Claim 14 to recite "trimming" and Claim 21 to recite "coding regions (CDS)", thereby obviating this objection.

***Claim Rejections under 35 U.S.C. §112 should be Withdrawn***

Claims 13-30 are rejected under 35 U.S.C. §112, second paragraph, for allegedly being indefinite.

Specifically, the Examiner alleges that although Claim 13 is directed to a method of selecting sequences, no selection step is recited in the Claim. Applicants have proceeded on the assumption that the Examiner is referring to Claim 13, although the Office Action refers to Claim 30. Applicants respectfully disagree with the Office Action. However, solely to expedite the issuance of the Claims, Applicants have amended Claim 13 to recite "a method of *obtaining*" rather than "a method of selecting" in the Preamble.

Claim 16 is allegedly indefinite because it limits the "generating" step of Claim 13 to selection of exemplary sequences and the terms "selecting" and "generating" are not synonymous. It would allegedly not be clear to one of skill in the art whether one may generate a variety of consensus sequences and select one from the variety for further use; or whether one may select a particular exemplary sequence for generation and

testing. Applicants respectfully disagree with the Office Action. The Specification and Figure 5 provide ample guidance to one of skill in the art to render Claim 16 definite. For example, page 15, line 28 of the Specification states that

“... the subclusters are used to generate consensus or exemplar sequences 503.

Sequence assembly is generated, preferably, for each subcluster, ....”

Page 16, lines 8-14 provide further guidance on selecting exemplar and/or consensus sequences. Figure 5 clarifies this further by describing “Generation of Candidate Design Sequences” (503) from which an “Exemplar/Consensus Sequence Set (emphasis added)” is selected and “Final Design Sequences are Picked” (504). Applicants respectfully submit that the rejection of Claim 16 should therefore be withdrawn.

Claim 19, which recites a variable ‘x’ (limited to not equal  $n/2$ ) is allegedly indefinite because neither “x” nor “n” are defined by the Claim and there is allegedly no equation or other algorithm reciting use or calculation of “x” or “n”. Applicants have amended Claim 19 to overcome this rejection.

Claim 26, which recites the term “ $P_i$ ” in an equation, is allegedly indefinite because the term is allegedly not defined in either the Specification or the Claims. Applicants respectfully disagree with the Examiner. References to “ $P_i$ ” may be found, for example, on page 24, line 23, page 25, line 11 of the Specification and Figure 10. For purposes of clarity however, Applicants have amended Claim 26 to recite a definition of “ $P_i$ ” as used in the Specification.

Claim 27, which recites the term “P” in line 27 is allegedly indefinite because the term “P” is allegedly not defined by the Specification or the Claims. The Examiner seeks clarification between the use of the term “p” (defined in the Claims as a probability) and “P” in the Claim. Applicants have amended Claim 27 to overcome this rejection.

Amended Claim 27 recites "P<sub>i</sub>" and support for the amendment may be found, for example, on page 24, lines 23-25 and in the Table on page 25 of the Specification.

The Examiner has deemed Claims 19-27 unsearchable and thereby not eligible for further treatment on the merits with regard to the prior art. Applicants respectfully request reconsideration of Claims 19-27 in light of the above arguments and amendments.

In view of the above amendments and arguments, Applicants respectfully submit that the rejection of Claims 13-30 under 35 U.S.C. §112, second paragraph, be withdrawn.

***Claim Rejections under 35 U.S.C. §102 should be Withdrawn***

Claims 13 and 15-18 are rejected under 35 U.S.C. §102(a) for allegedly being anticipated by Miller et al. (1999).

Applicants have amended Claim 13 to recite:

"and selecting probes targeting the exemplar or consensus sequences for designing the probe array."

Miller et al. do not disclose selection of probes based on the exemplar or consensus sequences for microarray analysis. Since amended Claim 13 is novel over Miller et al., dependent Claims 15-18 are also novel. Support for the amendment may be found, for example on page 12, lines 10-15 of the Specification.

In view of the above amendment, applicants respectfully submit that the rejection of Claims 13 and 15-18 under 35 U.S.C. §102(a) be withdrawn.

***Claim Rejections under 35 U.S.C. §103 should be Withdrawn***

Claims 1-18 are rejected under 35 U.S.C. §103(a) for allegedly being unpatentable over Miller (1999) in view of Burke et al. (1999).

Applicants are proceeding under the assumption that only Claims 14-18 are rejected under 35 U.S.C. §103(a) since Claims 1-12 have been withdrawn from consideration.

Applicants respectfully disagree with the Office Action. However, in view of the amendment to Claim 13, Applicants submit that neither of the cited references disclose or suggest selection of probes from candidate regions for designing probe arrays. Therefore, the rejection of Claims 14-18 under 35 U.S.C. §103(a) should be withdrawn.

### CONCLUSION

For these reasons, Applicants believe the application is now in condition for allowance and should be passed to issue. If the Examiner feels that a telephone conference would in any way expedite the prosecution of the application, please do not hesitate to call the undersigned at (408) 731-5000.

The Commissioner is hereby authorized to charge any additional fees which may be required, or credit any overpayment to Deposit Account 01-0431.

If the Examiner has any questions pertaining to this application, the Examiner is requested to contact the undersigned attorney.

Respectfully submitted,



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